

## **IN THE CLAIMS**

Please cancel claims 1-20 without prejudice.

Please add new claims 21-40.

1-20. (Cancelled).

21. (Newly Added) A mixed cut gemstone comprising:

- a pavilion;
- four lower corner facets, said lower corner facets being triangles;
- two long-side lower girdle facets, said long-side lower girdle facets being triangles or trapezoids;
- two short-side lower girdle facets, said short-side lower girdle facets being triangles;
- a plurality of step cuts, said step cuts being substantially equal in width; and
- a plurality of rib lines;

said steps being at a predetermined angle with respect to said lower girdle facets with each step being at a slightly different angle.

22. (Newly Added) The mixed cut gemstone of claim 21 further comprising:

- a crown;
- a girdle;
- a table;
- four upper corner facets, said upper corner facets being polygons;
- two long-side upper girdle facets, said long-side upper girdle facets being triangles;
- two-short side upper girdle facets, said short-side upper girdle facets being

triangles; and

four break table lines, said break table lines separating said table from said upper corner facets;

whereby said break table lines provide the gemstone with better dispersion and scintillation coefficients.

23. (Newly Added) The mixed cut gemstone of Claim 22 wherein said crown is in a shape of a diamond.
24. (Newly Added) The mixed cut gemstone of Claim 22 wherein said table is flat.
25. (Newly Added) The mixed cut gemstone of Claim 22, wherein said lower corner facets have an inclination of approximately 40 to 50 degrees with respect to a plane of said girdle.
26. (Newly Added) The mixed cut gemstone of Claim 22, wherein said lower corner facets are isosceles triangles.
27. (Newly Added) The mixed cut gemstone of Claim 22, wherein said upper girdle facets have an inclination of approximately 45 to 55 degrees with respect to a plane of said girdle.
28. (Newly Added) The mixed cut gemstone of Claim 22, wherein said long-side and short-side upper girdle facets are isosceles triangles.
29. (Newly Added) The mixed cut gemstone of Claim 22, wherein a depth of said girdle is approximately one twentieth of a length of said girdle.
30. (Newly Added) The mixed cut gemstone of Claim 22, wherein a depth of said crown is approximately one tenth of a length of said girdle.

31. (Newly Added) The mixed cut gemstone of Claim 22 wherein said rib lines divide said pavilion into eight sides.
32. (Newly Added) The mixed cut gemstone of Claim 31 wherein said rib lines run from said girdle's eight sided shape to a culet line;
33. (Newly Added) The mixed cut gemstone of Claim 22 wherein said rib lines converge at a culet point.
34. (Newly Added) The mixed cut gemstone of Claim 22 wherein said table is slightly elevated from the surface of a girdle plane.
35. (Newly Added) The mixed cut gemstone of Claim 34 wherein said crown has a depth of approximately one tenth of a length of said girdle.
36. (Newly Added) The mixed cut gemstone of Claim 34 wherein said girdle has a depth of approximately one twentieth of a length of said girdle.
37. (Newly Added) The mixed cut gemstone of Claim 22 wherein said pavilion has a depth of approximately one fourth of a length of said girdle.
38. (Newly Added) The mixed cut gemstone of Claim 22 further comprising:  
a plurality of crown facets.
39. (Newly Added) The mixed cut gemstone of Claim 38 wherein said crown facets are rectangular.
40. (Newly Added) The mixed cut gemstone of Claim 39 wherein said crown facets are situated between the long-side and short-side upper girdle facets.